

Hedgehogs

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Natural History

Hedgehogs are a number of species of small, spiny mammals native to Asia, Africa, and Europe. Despite the resemblance, they are not closely related to porcupines, echidnas, or tenrecs. Four-toed hedgehogs, also known as African pygmy hedgehogs (*Atelerix albiventris*), are most commonly kept in captivity, but there are at least 17 distinct species of hedgehog. Occasionally, the long eared hedgehog (*Hemiechinus auritus*), and Indian long eared hedgehog (*H. collaris*) may be found in the pet trade. Hedgehogs are primarily insectivorous, nocturnal animals that spend most of the daylight hours in dens, bushes, or grasses.

A relative of the extant Algerian hedgehog was kept by the Romans in the 4th century BC. These hedgehogs were used for food, kept as pets, and even bred for their skins. A hedgehog's spines were used to clean shawls, and to train calves to stop suckling from their mothers after weaning. Hedgehog quills were also used for dissection pins for many years. It's not until the 1980's that the hedgehogs that we know today became popular in the pet trade.

Characteristics and Behavior

Hedgehogs are solitary animals that may take significant effort to tame for handling. They are desirable in the pet trade because of their cute faces and unique appearance, but can be difficult to care for. Most hedgehogs do not enjoy petting and may never completely feel comfortable with handling. They do not tend to be cuddly animals, although every individual is different. Permits may be required to keep hedgehogs in certain states.

The most striking part of a hedgehog's appearance are their spines. Contrary to popular belief, hedgehogs do not throw their spines in defense. Instead, they roll into a ball to create a spiky shield that protects their more vulnerable body parts. These spines are made out of keratin, the same substance as skin and nails, and do not detach easily like a porcupine's. A relaxed hedgehog's spines are flat to their back and soft to the touch.

One unique behavior seen in hedgehogs is called "anointing". The purpose of this behavior is not entirely known. When a hedgehog encounters an interesting smelling object, they may start salivating excessively, and then rub a combination of their saliva

and the scent all over their body. This may be related to communication, camouflage, or defense.

Lifespan

4-6 years

Adult Size

Females tend to be smaller, around 200-400grams, while males tend to be around 400-600 grams.

Housing

The minimum enclosure size for a pet hedgehog is 6 square feet, but bigger is always better. Hedgehogs are surprisingly active, and will dig, climb, and even swim given the chance. Bottoms and sides should be solid, as wire caging can catch nails. Bedding, cleaned at least weekly, can include fleece, paper bedding (such as CareFresh), aspen, or kiln dried pine. For loose bedding, at least 2-3 inches should be provided to allow digging behavior. Avoid cedar as this can irritate a hedgehog's lungs. Some hedgehog owners choose to create a naturalistic, bioactive enclosure with live plants, natural substrate, and live insects.

To encourage exercise, a wheel should be provided. Avoid wire wheels to prevent injury to their feet. Hedgehogs also need multiple hiding spots to feel secure. These can include boxes, PVC pipes, blankets, hedge sacks, or pre-made hides. Some hedgehogs will learn to use litter boxes, which can be filled with alfalfa pellets, paper towel, or paper bedding. Hedgehogs are solitary animals and should be kept alone.

Hedgehogs require additional heating to maintain a proper environmental temperature. They are most comfortable with temperatures around 75-85F. This can be created with a heat mat, overhead heating source, or space heater. Ceramic heat emitters for reptiles are popular for use in hedgehogs. Your hedgehog's enclosure temperature should be measured with a digital thermometer to ensure accuracy.

Feeding

A captive hedgehog's diet is a subject of debate amongst hedgehog enthusiasts. In the wild, hedgehogs eat insects, snails, worms, eggs, reptiles, amphibians, fruit/berries, roots, mushrooms, and carrion. In captivity, providing a variety is key to keeping your

hedgehog healthy. Do not overfeed fatty insects (i.e. waxworms, mealworms), fruit, or treats, as this can lead to obesity.

Hedgehogs need high quality, moderate levels of protein (30-50%), and relatively low fat (10-20%). A commercial hedgehog kibble, cat food, or dog food should make up the bulk of the diet (approximately 2-3tsp per day). Canned cat food is also acceptable, but avoid fish-based diets. A small number of live insects should also be provided 3-4 times weekly. This can include crickets, mealworms, dubia roaches, hornworms, silkworms, and the occasional canned insect. Additionally, 1-2 tsp of chopped veggies, particularly root veggies, should also be provided daily. This salad can occasionally include fruit, but should not be the bulk of the diet. Eggs or cooked lean meats can be provided occasionally as well.

Onions, garlic, rhubarb, avocado, and citrus should all be avoided.

Water

Fresh water should always be available. Hedgehogs can drink from both bowls and dripper bottles.

Sexing

It is fairly straightforward to sex hedgehogs. The male's penis is readily apparent on the abdomen (sometimes confused for the belly button) while the female's vulva is much closer to the anus.

Handling

Many hedgehogs are not fond of handling but may be tamed with patience and positive reinforcement. Never try to force a hedgehog to unroll; not only will you not succeed, this is also very stressful for the hedgehog. Hand feed tasty treats to your hedgehog to teach them to associate you with food. Hold them securely and gently, and allow them to approach you. If you have a particularly ornery hedgehog, gardening gloves may be needed to protect your hands from their spines. Be sure to wait until your new hedgehog has settled in before you start handling them.

Grooming

Hedgehogs generally keep themselves fairly clean but will likely need their nails trimmed. Practice handling and desensitization to nail trimmers right away so you are able to monitor the growth of your hedgehog's nails and trim them when needed. If

bathing is necessary it should not be done more than 1-2x/month as this can dry out your hedgehog's skin.

Enrichment

Being very active and intelligent, hedgehogs need enrichment to keep them mentally and physically healthy. There are many varieties of enrichment, including food, exercise, toys, and exploration. Having a cage large enough to explore with multiple hiding spots is a good starting point. Vary the veggies and insects your hedgehog receives, and also consider hiding food in the enclosure to encourage foraging. Wild hedgehogs do not eat from bowls. Puzzle feeders (homemade or store bought) are excellent for encouraging activity and mental stimulation. Some hedgehogs also enjoy small plastic cat toys with bells in them. Boxes, paper bags, leaf litter, and scraps of fleece can all be provided for your hedgehog. Hamster balls are not recommended for hedgehogs.

Zoonosis

Hedgehogs commonly carry *Salmonella*, so you should always wash your hands after handling them. They can also carry ringworm or mites that are transmissible to humans.

Health

Unfortunately, hedgehogs are very prone to a variety of diseases. Cancer, heart disease, skin issues, dental disease, and obesity are common. Degenerative diseases including wobbly hedgehog or intervertebral disc disease are also commonly reported. Female hedgehogs are particularly prone to uterine tumors, so spaying can reduce the risk of this disease. Keeping hedgehogs at a healthy lean body condition also decreases the likelihood of various diseases. If a hedgehog is unable to fully roll into a ball, they are overweight.

Sources and further reading:

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